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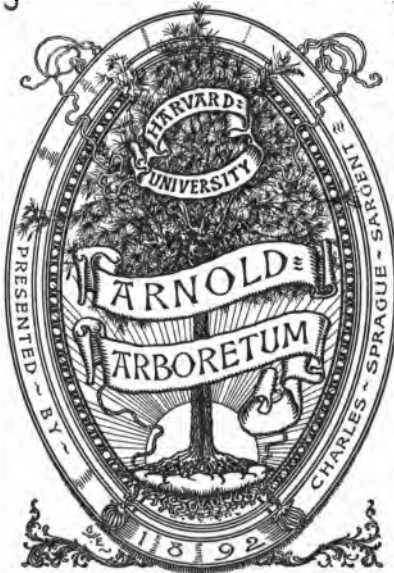
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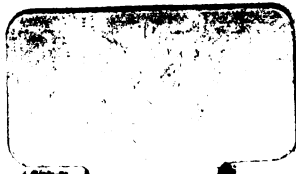
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THE
HABITAT AND PECULIARITIES
OF
SOME OF OUR TIMBERS.

BY
The Hon. W. PETTIGREW, Esq., M.L.C.,
TIMBER MERCHANT.

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**A Paper read before the Queensland Philosophical Society, 2nd**  
**September, 1877.**  
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BRISBANE:
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1878.

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QUEENSLAND PHILOSOPHICAL SOCIETY.

THE usual monthly meeting of the Society was held at the Society's rooms, Brisbane Museum, on 2nd September, 1877. The following paper was read by The Hon. W. Pettigrew, Esq., M.L.C.:—

ON THE HABITAT AND PECULIARITIES OF SOME OF OUR TIMBERS.

Seeing that large numbers of our trees are being planted in various parts of the world, and knowing that mistakes may be made in not planting the most suitable trees in certain positions, I have been induced to put in writing what knowledge I possess of our timbers, so that others may benefit thereby.

In preparing this paper, I have been indebted to A. C. Gregory, Esq., C.M.G., F.R.G.S., our vice-president; Mr. Walter Hill, of the Botanic Gardens; Mr. Thomas Petrie, North Pine River, and others.

The following remarks have reference to the timbers that grow within a limited distance of Brisbane, and along the coast as far as the Mary River, or, say, from the 26th to the 28th degree of latitude, and within twenty miles of the coast:—

There are two great divisions of the country in which our timbers grow. The one is called forest, and the other scrub. Forest trees do not grow in the scrub, and scrub trees do not grow in the forest. In some places the line of demarcation is very distinct. In the forest grass grows and bush fires occasionally take place, which destroy the young bushes, and keep the country clear. In the scrub there are no bush fires. Even the leaves on the ground when dry will not burn, unless heaped together. It is by this wise arrangement of Providence that we are indebted for the large number and variety of timbers that exist in the scrubs.

In addition to these two distinct divisions there is another called brush. In some places it exists between the forest and the scrub, and in others it covers considerable areas of country. At intervals of several years bush fires run through it. Where brush occurs between forest and scrub it is difficult to define where the one ends and the other begins. Sometimes trees that properly belong to the scrubs are to be found in the brush, but if there, they are seldom of any size. The brush timber is much the same as that of the forest, although there are some trees that only grow there. With these premises, I will now refer to the trees that grow in scrubs.

The Bunya Bunya (*Araucaria Bidwillii*) may be said to stand out first, being a noble tree and producing an edible nut. The farthest indigenous tree south that I know is one at the north end of the Caboolture Bridge.* About twenty miles farther north is where they begin to grow in numbers, namely, near Melum. From there to Coorooley, along the Blackall Range, and on the eastern side thereof, they grow in large numbers. They grow only in scrubs. On the northern branch of the Maroochy River the Moreton Bay pine and bunya are growing together. The bunya tree is prohibited by Government from being cut by timber-getters. It grows rapidly in favourable situations, as is to be seen in the Botanic Gardens. George Raff, Esq., had one cut down at New Farm which had been planted about twenty years. Part of it was cut at my mill. The length of the part cut was 12 feet, and diameter at small end was 16 inches.

The Dundathu pine (*Dammara robusta*) is a large tree in suitable places. The largest I have seen grew on a hill to the south of Double Island Point, and about two miles from the sea. They grew in a valley between sand hills. Several of these were seven feet in diameter. The southern limit of this pine tree is about Coorooley (lat. $26^{\circ} 20'$), a little north of Maroochy River. It extends north to the Kolan River, and I am informed it grows on the ranges to the west of Cardwell, also in Trinity Bay. Dry sandy ground, with plenty of vegetable matter and plenty of rain, seems to suit this tree best, and only in such places do large trees grow. The specimens of this tree in the Botanic Gardens do not appear to thrive well. The ground is too clayey for them. This tree ought to be cultivated. It is our most valuable pine, as it is easily worked with either saw, plane, or chisel. It is used for making doors, sashes, mouldings, and other joiners' work. In Sydney it is being extensively used for these purposes in the place of cedar. It grows very rapidly in suitable places.

Moreton Bay Pine (*Araucaria Cunninghamii*); native name, Brisbane, Cumburtu, Wide Bay, Coonam.—This useful tree grows in scrubs, over a large extent of country. It grows on the Richmond River, in New South Wales, in the 29th degree of latitude, up to Cardwell, in the 18th degree of latitude, and over the intervening country. It grows in a great variety of soils; some on sand, as at Tinian Bay; on the Brisbane slate, as at the upper part of the North and South Pine Rivers, Ithaca Creek, and Enoggera Creek; on the older Devonian slate, as at Moggill Creek; and on basalt covering coal shale, as at the Rosewood Scrub to the west of Ipswich. Where it has a

* Thirty-seven years ago this tree was seen by Mr. J. Petrie, and was then about a foot in diameter. It is now 3 feet 5 inches, showing a growth of nearly $\frac{1}{4}$ of an inch per year.

well-drained, deep, loose soil, it grows to a good size. This timber is largely used in house-building. Indeed, three-fourths of the timber used in our wooden buildings is Moreton Bay pine. In first-class houses it is still used for flooring, ceiling joists, rafters, and battens or boarding. It is also used for the bottoms of punts, where, if it is kept constantly wet, it lasts remarkably well. Where this pine grows on anything like level ground farmers know they can grow maize, sugar-cane, &c.; and therefore many pine scrubs are cleared for cultivation, to the injury of the country, from a timber-merchant's point of view.

Cypress Pine (*Callitris columnaris*).—Native names: Wide Bay, Coolooli; Brisbane, Pooragri. This tree grows on sandy ground along the coast, on the banks of creeks, and on the islands in Moreton Bay and Wide Bay. Salt seems to be requisite for its growth. It grows in forest ground. The largest I have seen were grown on islands a few miles to the south-east of Cleveland. It is used for piles for wharves and for sheathing vessels and punts, as it resists the attacks of the cobra for a time; cabinet-makers use it, as it takes a fine polish and looks well.

She Pine (*Podocarpus elata*).—Native name: Kidneywallum. This tree grows in scrubs, in brush, and even sometimes in the forest. It grows in a great variety of soils. I have not observed any growing to the north of Noosa of any size. It is to be found near Mooloolah and from that to the southern boundary of the colony. It has recently been found that it resists the cobra, but not so well as cypress pine. It has been used as piles for wharves, also for sheathing vessels and punts. Both this and cypress pine are rather brittle, but this not so much so as the cypress; it is also used for masts and spars of vessels. None else is used by our harbour master.

Red Cedar (*Cedrela Toona*).—Native names: Brisbane, Mamin and Mugurpul; Wide Bay, Woota. This magnificent deciduous tree grows in scrubs on granite, basalt, and Devonian slate, also on the banks of creeks and rivers descending from country of such formations. It is extensively used for joiners' and cabinetmakers' work. It is the highest-priced timber we have got, and is getting very scarce. As it grows to advantage in only a few localities, it will repay cultivation in those places.

Light Yellow Wood (*Flindersia Oxleyana*).—Grows in as many different soiled scrubs as the Moreton Bay pine. It grows plentifully on the lower Devonian slates at the Albert River. There is a limited demand for this timber by cabinetmakers, coach-builders, and others. It takes a very fine polish. White ants do not eat it when used in house building. It must be kept dry. It twists and decays if subjected to the weather. It is used for masts and spars of vessels. This is the only timber that I know of that the white ants do not eat when kept dry.

Dark Yellow Wood (*Rhus Rhodanthemia*), **Tulip Wood** (*Harpulla Pendula*).—These trees grow in scrubs on the alluvial banks of rivers. They are esteemed for cabinet work.

Silky Oak (*Grevillia Robusta*).—Native name: Tuggan Tuggan. This is a quick growing tree, found in scrubs on same formations as Moreton Bay pine. The timber is used for coopers' work, for cabinet work, and shingles for houses.

Beech (*Gmelina Leichhardtii*).—Native name: Cullouen. This valuable timber grows in a variety of scrub soils. The largest I have seen grew on Buderum Mountain, at Mooloolah, on basalt, along with cedar. Again on sandy ground, near Double Island Point, along with pine. Also on Brisbane slates. This timber is found in scrubs in New South Wales. I have seen several trees over 5 feet diameter at 6 feet from the ground, and a trunk or boll of 50 feet long. There is a large demand for this timber for flooring boards and deck planks; also, a limited demand for many other purposes. It is easily cut or carved, and polishes fairly. The white ants do not readily attack it. This is the next highest priced timber to cedar, and ought to be cultivated. Mr. Hill informs me it is difficult to propagate. The seeds are ripe in January. After a tree has had a crop of seeds, several years elapse before it has another.

Reference might be made to many other scrub trees, but as I can give little or no information concerning their peculiarities, or uses, they are beyond the scope of this paper. Before dismissing the matter of scrub trees and bushes, I may add that they might be used as belts of shelter trees, and also as a stop to bush fires. Both of these, I presume, are much required on the Darling Downs and other places. The ground would have to be fenced off, the seeds sown, or trees and bushes planted, and the grass kept down for a few years till the trees and bushes covered the ground. Be it observed that this is a matter of pure speculation on my part. I do not know that scrub bushes and trees would grow under such circumstances; yet I fail to see why they should not do so. Once they covered the ground and prevented grass growing under them, there would be no danger of bush fires passing through. Gum trees and other forest trees would have to be kept from growing too near to them. Why forest trees grow in one place and scrub trees in another is a subject deserving consideration; yet no reason which I have learned will hold good in every instance. Rough, steep, broken ground, into which the roots of trees can penetrate a considerable distance, is often covered with scrub. Basaltic hills are nearly universally covered with scrub near the coast. On Darling Downs this country has the best grass, and is forest. In the Brisbane slate and sandstone country the ridges are covered with forest timber, but in some of the valleys or along the watercourses there are scrubs. At the same time I know of places where the scrub goes right over the tops of the sandy

hills. In some places it is not the quality but the depth of the soil that determines between forest and scrub. Where the soil is very thin on the top of the rock, or where it is hard, in these instances forest grows.

Reference will now be made to forest timber. I shall first take those that grow nearest to the sea.

Tea Tree, or Paper Bark.—Mr. Hill refers to seven different varieties of this timber. It is used for knees of vessels, or for fencing purposes where more suitable timber is scarce. It grows in swamps or on wet clayey ground. Near Mooloolah it is growing within a chain of high-water mark in swampy ground. It forms a complete breakwind to more valuable timber.

Blackbutt (*Eucalyptus pilularis*).—Native name, Toi. This tree grows close to the coast on sandy ridges. From the Caboolture River northwards to the Mary River, and including Frazer's Island, there is an immense quantity of it. Although growing best in these localities, it is by no means limited thereto. It grows on ridges in West Moreton, and on the main range at Highfields, and other places. Well-drained ground and plenty of moist winds seem to be the requisites for the full development of this tree. The timber is highly esteemed for house building and many other purposes. We have found that it stands very well for wooden rails for our railway at Tin Can Bay. It would do well for railway sleepers. It is also used as planking for vessels.

Turpentine (*Eucalyptus stuartina*).—Native name: Tee. This tree grows with the black-butt in the Mooloolah country and to the southward, but I have not seen any about Wide Bay. It grows on sandy or gravelly ridges. The timber is said to be very durable under ground. It is difficult to burn and split, and consequently has not been used for fencing purposes. At Toowoomba it has been planed up for lining boards. It is not plentiful. I think this should do remarkably well for railway sleepers, bridge work, planking for vessels, &c. It grows rapidly.

Syconcarpa laurifolia.—Native name: Peebeen. This tree has been mistaken for the preceding one. It grows remarkably well on Frazer's Island, and on the top of the ridge close to the sea to about latitude $26^{\circ} 10'$. Although found in favoured localities as far south as 27° , it rarely attains great size. This timber was said to be capable of resisting the cobra, and thereby a great value was set on it by the Government; yet, when tested by the Harbour Master here, it has been found that such is not the case, as the specimens on the table will show, one of which is peebeen, another turpentine, and the third swamp mahogany. The latter is not touched; the other two are both eaten into. They were in the water ten months, nailed to piles. At Wide Bay the natives at one time made their canoes of the bark of this tree. What it is specially fit for as a timber I have yet to learn. It warps in drying.

Swamp Mahogany (*Angophora species*).—Native name, Boolerchu. This timber grows on poor, wet, or swampy land. It attains to a good size. It resists the cobra longer than any other so far as yet known. When cut up into boards or planks it cracks and twists into all manner of ways. Were it possible to keep it constantly wet after being cut, and till fastened into its place, it might prove very useful for sheathing vessels or for protecting the banks of rivers, as, for instance, at Mackay. Mr. John Petrie informs me that some of this timber is to be found that does not crack and warp in the manner herein described, about seven miles from Cleveland.

Stringy Bark (*Eucalyptus fibrosa*).—This tree grows on sandstone of the coal measures, and on the Brisbane slate. It is used for rails in fencing, not being readily liable to take fire. It makes the best charcoal.

The bark of the four preceding trees is rough, loose, and persistent. On the Blackbutt the bark is persistent on the trunk but deciduous on the branches.

Ironbark (*Eucalyptus Siderophloia*).—There are two sorts of this timber, one gray coloured, native name, Tanderoo; the other dark-red, native name, Biggera. The Biggera has got a thick ridgy bark, grows in patches on ridges. The tanderoo grows more on flats and sides of scrubs, has a thinner bark, burns much more readily, is not so pipey, and not so readily eaten by the white ants as the Biggera. It is also a tougher timber. These trees grow in a great variety of soils. Twenty-five years ago immense numbers grew in the parishes of Woogaroo and Goodna, on the sandstone, in the coal measures; also on the Brisbane slate, on the north side of Enoggera Creek, Waterworks road. It is used extensively for piles, beams, and planking of wharves and bridges. In house building it is used for beams, joists, studs, and shingles. By wheelwrights for naves and spokes. By shipwrights for beams, keels, and planks, and for sleepers on railways. It is also used for fencing posts and rails. The tree suffers from bush fires, and the white ants eat it.

Bloodwood (*Eucalyptus corymbosa*).—Native name, Boona. This tree grows in a greater variety of soils and places than any other tree or plant that I know of. It is to be found on the richest soils and in the poorest, in swamps and on the tops of ridges. In rich soils the timber is nearly worthless, as it is full of gum veins or rings. The good sound trees are on poor soil. The timber is very durable on the ground or in the ground. A piece can be pointed out at the North Pine River that was cut into by a cross-cut saw and an axe in the year 1825. It is used for posts in fencing. It does not readily take fire; neither is it soon attacked by white ants. For posts for building, and using the whole log, this timber is superseded by none for durability that I know of.

Spotted Gum (*Eucalyptus Maculata*).—Native name, Urara. Grows extensively on the Brisbane slates, much more so than any other timber, particularly in the parish of Indooroopilly. The bark has a bluish colour, is thin ($\frac{1}{4}$ to $\frac{3}{8}$ inch thick), smooth, deciduous, and falls off in patches. The timber is used for joists, studs, planking for bridges, buggy shafts, cogs of wheels, &c. It is elastic, close, and durable, and takes a fine polish. Several other trees are called spotted gum, but they do not possess the strength and elasticity of this one.

Blue Gum (*Eucalyptus botryoides*).—Native name, Mungur. Grows on the banks of our rivers and creeks, and on ground occasionally flooded. The bark is thick (about half an inch or more), deciduous, except a piece about 4 feet to 8 feet at the bottom. Several trees are still to be seen on the river bank in the Domain. This timber is specially adapted for wheel felloes, and is the only timber used here for the purpose. It is also cut for weatherboards, as it does not readily split with nails. It is considerably inlocked and elastic. A tree very similar to this grows on the ridges, but has a thin bark in comparison. The timber, though fit for many purposes, is quite useless for felloes; it splits longitudinally on drying.

Gray Gum (*Eucalyptus Saligna*) grows on the Brisbane slates and other ridges. I do not know of its being a plentiful timber in any locality. It is used for building purposes, and does very well for rails for fences, as it does not readily take fire. Fences of bloodwood for posts, and this for rails, are considered the safest from fire and most durable against the attacks of white ants. This timber is often split into shingles and sold for ironbark, very few people being able to challenge them.

Box grows on flat, clayey ground of the coal shales. It is plentiful up Woolston Creek, near to the railway. It has a thin, grayish bark, which sheds in strips twenty to thirty feet long. The timber is in good repute for building purposes, also for poles and shafts of drays.

Bastard Box (*Tristania Conferta*).—This tree, but of no great size, is plentiful on the ridges near Brisbane. It has strong spreading branches and a good shade. If cut down or burned down it springs up from the roots. It would make a fine shade tree for the streets. The timber is of no account for sawing, as it twists and gets uneven in drying. A similar tree grows in the scrubs near Double Island Point, native name, Weerabi; also in similar places up Moggill Creek. In these places it is a tall, straight, solid tree. Not having cut any from such places, I am unable to refer to its qualities.

Flooded Gum (*Eucalyptus Grandis*).—Native name, Too-lur. Grows in brush on basalt, or on the edges of scrubs. It has a white bark which peels off right down to the ground. It grows to a great height, and is the lightest of all the gums

hereabout, floating in water soon after being cut. It is easily cut by saw, but shrinks very much in drying. It is used for weatherboards, and sometimes for making parts of drays and carts. Also used for masts, spars, and planks of vessels.

These are the principal forest trees that are in common use amongst the colonists. There are the oaks and wattles that exist as underwood throughout the forest country embraced in this paper. The oaks are used for axe, pick, and hammer handles, and are good firewood. The wattles in some places are stripped of their bark for tanning purposes, but where the grass is eaten down, and no strong bush fires occur, the wattles grow up and destroy the grass.

There are several gums which I have not mentioned, because they have no peculiarities worth mentioning. Some of them are worthless so far as timber is concerned.

Several of the eucalypti shed their seed about the end of November or beginning of December.

The Bunya Bunya is ripe about the end of January.

The Dandathu and Moreton Bay pine shed their seed about the end of December.

Cypress pine in November.

Red cedar seeds ripen about end of January.

Beech seeds are ripe in January.

The speaker also showed samples of the timbers described, in explanation of his remarks, and on the conclusion of the paper, a motion that it be printed in the transactions of the Society was put and carried.



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